

IN THE CLAIMS:

Please amend the claims as shown below, in which deleted terms are shown with strikethrough and/or added terms are shown with underscoring. This listing of claims replaces all prior versions, and listings, of claims in the application.

Claim 1 (currently amended). In combination,

a nozzle having an elongate slit-like discharge opening of a predetermined great width in a lower end thereof and adapted to discharge coating liquid on a surface of a substantially planar substrate in the predetermined width, wherein the nozzle discharges coating liquids such that the coating liquids are dropped onto the substrate surface; and

a cleaning apparatus for the nozzle, the cleaning apparatus comprising:

a cleaning tank containing a cleaning liquid;

a cylindrical long-length brush which is disposed in the cleaning liquid within said cleaning tank so that a longitudinal axis of said brush is parallel to said slit-like discharge opening when the lower end of the nozzle is disposed in engagement with the brush; and

a device which rotates and moves the brush when the lower end of the nozzle is disposed in engagement with the brush ,

wherein a longitudinal length of said long-length brush is substantially the same as a length of the elongate slit-like discharge opening of said nozzle; and

the device rotates said brush around the longitudinal axis thereof and reciprocates said brush in a horizontal direction perpendicular to the longitudinal axis and also in a vertical direction.

Claim 2 (previously presented). The cleaning apparatus and nozzle according to claim 1, wherein a hair structure of the long-length brush is arranged obliquely with respect to the longitudinal axis of the brush such that the hair structure contacts the lower end of the nozzle to be cleaned in an oblique direction when the lower end of the nozzle is disposed in engagement with the brush.

Claim 3 (withdrawn, currently amended). In combination,

a nozzle having an elongate slit-like discharge opening of a predetermined great width in a lower end thereof and adapted to discharge coating liquid on a surface of a substantially planar substrate in the predetermined width, wherein the nozzle discharges coating liquids such that the coating liquids are dropped onto the substrate surface; and

a cleaning apparatus for the nozzle, the cleaning apparatus comprising:

a cleaning tank containing a cleaning liquid;

two cylindrical long-length brushes which are disposed in the cleaning liquid within said cleaning tank so that longitudinal axes of said brushes are parallel to the slit-like discharge opening when the lower end of the nozzle is disposed in engagement with the brushes; and

a mechanism which rotates and moves the brushes when the lower end of the nozzle is disposed in engagement with the brushes ,

wherein said two long-length brushes are located in a positions where hair structures thereof are in contact with each other so as to sandwich the lower end of said nozzle therebetween when the lower end of the nozzle is disposed in engagement with the brushes, and

wherein a length of each long-length brush is substantially the same as a length of the elongate slit-like discharge opening of said nozzle, and the mechanism rotates each brush

around the longitudinal axis thereof and reciprocates each brush in a horizontal direction perpendicular to the longitudinal axis and also in a vertical direction.

Claim 4 (previously presented). The cleaning apparatus and nozzle according to claim 1, further comprising a brush cleaning means for scraping a material attached to the long-length brush, provided within the cleaning tank.

Claim 5 (previously presented). The cleaning apparatus and nozzle according to claim 2, further comprising a brush cleaning means for scraping a material attached to the long-length brush, provided within the cleaning tank.

Claim 6 (withdrawn). The cleaning apparatus and nozzle according to claim 3, further comprising a brush cleaning means for scraping a material attached to the long-length brush, provided within the cleaning tank.

Claim 7 (withdrawn). The cleaning apparatus and nozzle according to claim 3, wherein a hair structure of the long-length brush is arranged obliquely with respect to the longitudinal axis of the brush such that the hair structure contacts with the lower end of the nozzle to be cleaned in an oblique direction.

Claim 8 (previously presented). The cleaning apparatus and nozzle according to claim 1, wherein the device includes a mechanism which moves said long-length brush in the horizontal direction perpendicular to the longitudinal axis of the brush and another mechanism which

moves the long-length brush in the vertical direction both while the brush is rotated.

Claim 9 (withdrawn). The cleaning apparatus and nozzle according to claim 3, wherein the device includes a mechanism which moves each said long-length brush in the horizontal direction perpendicular to the longitudinal axis of the brush and another mechanism which moves the long-length brush in the vertical direction both while the brushes are rotated.

Claim 10 (previously presented). The cleaning apparatus and nozzle according to claim 1 further comprising a comb provided within the cleaning tank which scrapes material attached to the long-length brush as it rotates.

Claim 11 (previously presented). The cleaning apparatus and nozzle according to claim 2 further comprising a comb provided within the cleaning tank which scrapes material attached to the long-length brush as it rotates.

Claim 12 (withdrawn). The cleaning apparatus and nozzle according to claim 3 further comprising a comb provided within the cleaning tank which scrapes material attached to the long-length brush as it rotates.

Claim 13 (previously presented). The cleaning apparatus and nozzle according to claim 1, wherein a hair structure of the long-length brush is arranged obliquely with respect to both the longitudinal axis of the brush and the circumferential direction of the brush such that the hair structure contacts the lower end of the nozzle to be cleaned in an oblique direction when the

lower end of the nozzle is disposed in engagement with the brush.

Claim 14 (Cancelled).

Claim 15 (currently amended). A cleaning apparatus for a nozzle having an elongate slit-like discharge opening of a predetermined great width in a lower end thereof and adapted to discharge coating liquid on a surface of a substantially planar substrate in the predetermined width by dropping the coating liquids onto the substrate surface, the cleaning apparatus comprising:

 a cleaning tank containing a cleaning liquid and having an open upper end adapted to receive the lower end of the nozzle therein;

 a cylindrical long-length brush which is disposed in the cleaning liquid within said cleaning tank; and

 a device which rotates and moves the brush when the lower end of the nozzle is disposed in engagement with the brush ,

 wherein

 the device rotates said brush around a longitudinal axis thereof and reciprocates the brush in a horizontal direction perpendicular to the longitudinal axis and also in a vertical direction,

 the cleaning tank includes partition plates extending upwardly from a bottom wall thereof to define a reservoir portion which contains the cleaning liquid within the cleaning tank,

 a lower portion of the brush is disposed in the cleaning liquid in the reservoir portion, and

 a drain port formed in said bottom wall laterally outward of said reservoir portion such that cleaning liquid spilling out of the reservoir portion when the brush is rotated and moved is

drained from the cleaning tank through the drain port.

Claim 16 (previously presented). The cleaning apparatus according to claim 15, wherein a hair structure of the long-length brush is arranged obliquely with respect to the longitudinal axis of the brush such that the hair structure contacts the lower end of the nozzle to be cleaned in an oblique direction when the lower end of the nozzle is disposed in engagement with the brush.

Claim 17 (previously presented). The cleaning apparatus according to claim 15, further comprising a brush cleaning means for scraping a material attached to the long-length brush, provided within the cleaning tank.

Claim 18 (previously presented). The cleaning apparatus according to claim 15, wherein the device includes a mechanism which moves said long-length brush in the horizontal direction perpendicular to the longitudinal axis of the brush and another mechanism which moves the long-length brush in the vertical direction both while the brush is rotated.

Claim 19 (previously presented). The cleaning apparatus according to claim 15, further comprising a comb provided within the cleaning tank which scrapes material attached to the long-length brush as it rotates.

Claim 20 (previously presented). The cleaning apparatus according to claim 1, wherein the cleaning tank includes partition plates extending upwardly from a bottom wall thereof to define a reservoir portion which contains the cleaning liquid within the cleaning tank,

a lower portion of the brush is disposed in the cleaning liquid in the reservoir portion, and
a drain port formed in said bottom wall laterally outward of said reservoir portion such
that cleaning liquid spilling out of the reservoir portion when the brush is rotated and moved is
drained from the cleaning tank through the drain port.